# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

n re application of: Rice et al.

Application No. 10/017,323

Filed: December 13, 2001

For: BENZOYLALKYLINDOLEPYRIDINIUM

COMPOUNDS AND

PHARMACEUTICAL COMPOUNDS COMPRISING SUCH COMPOUNDS

Examiner: Not yet assigned

Date: June 12, 2002

Art Unit: 1619

## CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on June 12, 2002, as First Class Mail in an envelope addressed to: COMMISSIONER FOR PATENTS, WASHINGTON D.C. 2027.

On 1 6

Stacey C. Slater, Esq. Attorney for Applican

#### TRANSMITTAL LETTER

COMMISSIONER FOR PATENTS WASHINGTON, DC 20231

Enclosed for filing in the application referenced above are the following:

- ☐ Information Disclosure Statement
  ☐ Form 1449 and references cited thereon
- The Director is hereby authorized to charge any additional fees that may be required to Denosit Account No. 02-4550. A copy of this sheet is enclosed.
- Please return the enclosed postcard to confirm that the items listed above have been received.

Respectfully submitted,

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cc: Docketing

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SURE STATEMENT

Art Unit: 1619

PURSUANT TO 37 C.F.R. § 1.97(b)(3)

COMMISSIONER FOR PATENTS WASHINGTON, DC 20231

Sir:

Listed on the accompanying form PTO-1449 and enclosed herewith are several Englishlanguage documents and several Russian-language documents. The relevance of the Russianlanguage documents is as shown in their titles and accompanying figures. Applicants respectfully request that these documents be listed as references cited on the issued patent.

Applicants filed this Information Disclosure Statement ("IDS") before the mailing date of a first Office action on the merits. As a result, no fee should be required to file this IDS.

However, if the Patent Office determines that a fee is required for Applicants to file this Information Disclosure Statement, please charge any such fees, or credit overpayment, to Deposit Account No. 02-4550. A duplicate copy of this Information Disclosure Statement is enclosed.

Respectfully submitted,

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			graphic Databases - Informat n, F. H., Bergerhoff, G. & Sie				7.
	Novel 6-Sub 1381, Dec. 1	Baba, M., et al., "Highly Specific Inhibition of Human Immunodeficiency Virus Type 1 by a Novel 6-Substituted Acyclouridine Derivative," <i>Biochem. Biophys. Res. Comm.</i> 165(3):1375-1381, Dec. 1989.  ABSTRACT ONLY					
			otein Data Bank: A Compute J. Mol. Biol. 112:535-542 (19		rchival File fo	or	
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PATOMET &	OTHER	DOCUMENTS	2900 12900
	oxathiole-2",2"-dioxide)pyrimid Inhibitors of Human Immunode	0-(tert-butyldimethylsilyl)-3'-spiro-5" line (TSAO) Nucleoside Analogues: ficiency Virus Type 1 That are Targe 8. Sci USA 89:4392-4396, May 1992.	Highly Selective
	against Nonnucleoside Reverse	hly Potent Oxathiin Carboxanilide De Transcriptase Inhibitor-Resistant Hu ents Chemother. 41(4):831-837, Apr.	man Immunodeficiency
		Solution-Stable, Water-Soluble Prod H-Acidic Group," J. Med. Chem. 32(1	
		Activities of Human Immunodeficien ecific Cleavage and Integration of HI Feb. 1991.	
	Ciminale, V., et al., "A Bioassay Retrovir. 6(11):1281-1287, Nov ABSTRACT ONLY	y for HIV-1 Based on Env-CD4 Inter- . 1990.	action," AIDS Res. Hum.
	Cohen, J., "The Daunting Challe 1997.	enge of Keeping HIV Suppressed," So	cience 277:32-33, July
		ization of the Binding Site for Nevira nan Immunodeficiency Virus Type-1 4674, Aug. 1991.	
	Condra, J. H., et al., "Identificat	tion of the Human Immunodeficiency attribute to the Activity of Diverse Not 36(7):1441-1446, Jul. 1992.	
		Targeted at the Reverse Transcriptase 22.	," AIDS Res. Hum.
EXAMINER:		DATE	

\*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if

not in conformance and not considered. Send copy.

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			ected from Non-nucleoside Reverse iman Immunodeficiency Virus Type i. 1996.	
		Immunodeficiency Virus Type 1	Target on Reverse Transcriptase of Revealed by Tetrahydroimidazo-[4, and -thione Derivatives," <i>Proc. Nat.</i>	5,1-
		Finzi, D., et al., "Identification of Antiretroviral Therapy," Science	a Reservoir for HIV-1 in Patients o 278:1295-1300, Nov. 1997.	n Highly Active
			ations in the Polymerase Domain on of Human Immunodeficiency Virus 559-572, Apr. 1998.	
			ne Derivatives: Specific Human Im ibitors With Antiviral Activity," Pro-	
			29 Specifically Inhibits Human Immi I Possesses Antiviral Activity <i>In Viti</i> 1y 1992.	
			fomology and Morphologic Similaritus," Science 227:173-177, Jan. 1985	
		2',3'-Dideoxycytidine, 2',3'-Dide	Mutant Reverse Transcriptase of H 20xy-3'-thiacytidine, and 2',3'-Didecoxynucleoside Triphosphate Inhiv. 1994.	oxyinosine Shows
EXAMINER	:		DATE	
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\*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if not in conformance and not considered. Send copy.

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BITENT 3	OTHER	DOCUMENTS	72900
	Analogue That Interferes With (	n of In Vitro and In Vivo HIV Replica Chemokine Receptor Function: a Car cidal Application," J. Med. Chem. 41(	didate for
	Human Immunodeficiency Virus	"Detection of Replication-Competents with a Sensitive Cell Line on the Baiene," <i>J. Virol.</i> 66(4):2232-2239, Apr	sis of Activation of an
	Koup, R.A., et al., "Inhibition of	f Human Immunodeficiency Virus Ty epinone BI-RG-587," <i>J. Infect. Dis.</i> 1	
		s in HIV-1 Reverse Transcriptase and iviral News 3(1):8-13, 1995.	Protease Associated
	Merluzzi, V. J., et al., "Inhibition Transcriptase Inhibitor," Science	n of HIV-1 Replication by a Nonnucl e 250:1411-1413, Dec. 1990.	eoside Reverse
		ead for Specific Anti-HIV-1 Agents: nylthio)thymine," J. Med. Chem. 32(1	
	(HIV-1) Inhibition by a Series of	d Highly Selective Human Immunode fα-Anilinophenylacetamide Derivativati. Acad. Sci. USA 90:1711-1715, M	ves Targeted at HIV-1
		Selective Inhibition of HIV-1 Replica ature 343(6257):470-474, Feb. 1990.	tion In Vitro by a Novel
EXAMINER		DATE	
*Examiner: In	nitial if considered, whether or not in	conformance with MPEP 609; dra	w line through cite if

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	Docket: 4239-61858	App: 100 7,323
INFORMATION DISCLOSURE STATEMENT	Applicant: Rice et al.	JUN
BY APPLICANT	Filed: December 13, 2001	Art United 1 9
OTHER	DOCUMENTS	00/28
Rice, W.G., et al., "Inhibition of Replication by a Dithiane Compo	Multiple Phases of Human Immunocound That Attacks the Conserved Zin rob. Agents Chemother. 41(2):419-42	c Fingers of Retroviral
Rice, W.G., et al., "Inhibition of Compounds," Nature 361(6411):  ABSTRACT ONLY	HIV-1 Infectivity by Zinc-Ejecting A 473-475, Feb. 1993.	romatic C-Nitroso
Rice, W.G., et al., "Inhibitors of Treatment of AIDS," Science 270	HIV Nucleocapsid Protein Zinc Fing 0:1194-1197, Nov. 1995.	ers as Candidates for the
	Selected Chemotypes in Coupled in Identifies Novel HIV-1 Zinc Finger 996.	
Rice, W.G., et al., "The Site of A	antiviral Action of 3-Nitrosobenzami ency Virus in Human Lymphocytes,	
Rice, W.G., and Bader, J.P., "Dis as Biopharmaceuticals," in Adv. in ABSTRACT ONLY	scovery and In Vitro Development of Pharmacol. 33:389-438, 1995.	AIDS Antiviral Drugs
	oside Reverse Transcriptase Inhibitor nodeficiency Virus Type 1 Replication 11.	
Structure-Activity Relationships of 1-[(5-Methanesulfonamido-1H	aryl)piperazine (BHAP) Reverse Tra of Novel Substituted Indole Analogu (I-Indol-2-yl)-Carbonyl]-4-[3- {(1-Me- nesulfonate (U-90152S), a Second-C ):1505-1508, May 1993.	es and the Identification thylethyl)Amino]-
EXAMINER:	DATE	
*Examiner: Initial if considered, whether or not in o	conformance with MPEP 609; dra	w line through cite if

not in conformance and not considered. Send copy.

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Docket: 4239-61858 App: 10/01 Applicant: Rice et al.

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Filed: December 13, 2001

		Ryabova et al., "A New Approach to b]indole Derivatives," Mendeleev C	o the Synthesis of 1,2- and 1,4-Dihydropyrido[3,2- ommun. 3:107-109, 1995.
			inoindoles in the Synthesis of 1,2- and 1,4-Dihydro-5H- erivates," <i>Pharm. Chem. J.</i> 30(9):579-584, 1996.
		Pyrido[3,2-b]Indole (δ-Carboline) D (full citation unavailable). (Russian	
		THE RELEVANCE OF THIS REFE FIGURES 1-7.	ERENCE IS AS SHOWN IN THE TITLE AND
		Ryabova et al., Khimiko-Farmatsevi unavailable). (Russian)	icheskii Zhurnal, pp. 42-46, 1996 (full citation
		THE RELEVANCE OF THIS REFE	ERENCE IS AS SHOWN IN FIGURES 1-4.
			ription of Human Immunodeficiency Virus Type 1 is a hibitors," <i>Antiviral Chem. Chemother</i> . 8(1):60-69, 1997.
		Wallqvist, A., and Covell, D.G., "Do Based Free-Energy Surface," <i>Protein</i> ABSTRACT ONLY	ocking Enzyme-Inhibitor Complexes Using a Preference- ns 25(4):403-419, 1996.
			Formazan Assay for HIV-1 Cytopathic Effects: of Synthetic and Natural Products for AIDS-Antiviral ;577-586, Apr. 1989.
			-[(1-furo[2, 3-e]pyridin-5-ylethyl)thio]-4-pyrimidinamine, n HIV-1 Non-Nucleoside Reverse Transcriptase 7-1360, Apr. 1998.
EXAMI	NER:		DATE

\*Examiner: Initial if considered, whether or not in conformance with MPEP 609; draw line through cite if

not in conformance and not considered. Send copy.

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	Wong, J.K., et al., "Recovery of Replication-Competent HIV Despite Prolonged Suppression of Plasma Viremia," Science 278:1291-1295, Nov. 1997.			
	Young, L. et al., "A Role for Surface Sci. 3:717-729, 1994.	ee Hydrophobicity in Protein-Prote	in Recognition," Prot.	
	Zack, J.A., et al., "HIV-1 Entry Into Reveals a Labile, Latent Viral Struct ABSTRACT ONLY			
EXAMINER:		DATE		
*Examiner: Initial	if considered, whether or not in con	formance with MPEP 609; drav	w line through cite if	

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